MAKE THINGS BETTER

Why Industry is Engaged in Pre-Apprenticeship
Today’s Manufacturing Is:

- Fast paced
- Highly Competitive
- State of the Art
- Advanced Technology and Automation
  - HMI’s
  - Vision Systems
  - Robotics
  - Automated Storage Retrieval Systems
  - Self Guided Vehicles
- World Class!!!!

The traditional low-paid assembly-line jobs will never come back. The jobs today in manufacturing are **high-tech, high paying jobs** with tons of **growth opportunity in a World Class Manufacturing facility**.
The biggest challenge will be to maintain or increase production levels to satisfy growing customer demand.
The Skills Gap

The skills gap may leave an estimated 2.4 million positions unfilled between 2018 and 2028 in the manufacturing industry alone.

Not enough students in applied technology career pathways

- Lack of mid-career employees
- Large number of near-retirement workers

Persistent skills shortage could risk $2.5 trillion economic output over the next decade

It is our responsibility to take an active role in addressing this skills gap; our future depends on it!!

2018 Deloitte and the Manufacturing Institute skills gap and future of work study
Organizations must embrace creating long-term partnerships with public education, industry associations, and agencies to develop programs that build a strong connection with the industry, creating a skills talent pool for tomorrow’s manufacturing environment.
There is a shifting skill set needed due to the introduction of new advanced technology and automation.

The types of skills that employees need to possess are rapidly evolving.
Education Ratio:

1:2:7

70% of jobs will require some training after high school by 2025

For every occupation that requires a master’s degree or more, two professional jobs require a university degree, and 7 jobs requiring a 1-year certificate or 2-year degree; and each of these technicians are in very high-skilled areas that are in great demand.
Misalignment of Workforce Needs vs. Job Skills

100 HS Graduates

68 Attend 4 Yr. College

32 Enter Workforce/Other

41 Graduate w/ 4 Yr. Degree

27 Drop-Out Enter Workforce/Other

23 Professional Jobs

18 College Grads Working in Non-Prof jobs

59 Enter Workforce/Other

77 Enter Workforce/Other or Non-Prof jobs
Getting a jumpstart in your career:

**Average salary for a professional occupation - college graduate**

- $65,000 - Engineer
- $50,000 - Purchasing / Finance

**HS Education-Manufacturing**

- $34,650 - Production Technician (entry level)
- $41,240 - Sr. Production Technician
- $43,114 - Lead Operator I
- $45,750 - Lead Operator II

**Direct Workforce – “4 yrs. ahead”**

- $164,754 - 4 extra yrs. of earnings
- $140,000 - 4 years of debt savings
  (based on $35,000 estimated average cost per year)

$304,754 ahead
Why should schools consider implementing Pre-Apprenticeship Programs?

- Partnership with businesses, educators, students, and their parents to build a workforce pipeline of the future.
- Combines high school curriculum and technology training with the essential on-the-job trainings required by the businesses.
- Help companies gain access to more productive employees and fill key jobs involving new technologies.
- Direct link to hiring individuals into company apprenticeship programs
- Great opportunity for students to:
  - Explore and learn about exciting careers.
  - Qualify to meet the minimum standards for selection to a registered apprenticeship program.
  - Benefit from classroom and hands-on technology-based training.
  - Build the literacy, math, English, and work-readiness skills employers desire.
Industrial Manufacturing Technician Apprenticeship

• The IMT is a registered apprenticeship program that has been developed to enhance the skills of team members.

Team Members are:

• Gaining on-the-job-learning in the critical manufacturing work processes and related tasks as well as participating in formal education and assessments.
• Earning while they learn.
• Preparing to take on advanced roles in our organization, and they are afforded new opportunities while working.
Manufacturing Career Pathways

Support Functions
- Accounting / Finance
- Supply Chain
- Human Resources
- IT/IS

Operations
- Manufacturing Technician
- Production Manager
- Supervisor
- Team Leader

Engineering
- Process/Project/Controls Engineer

Maintenance
- Engineering Technician
- Controls Technician
- Maintenance Technician
- Machinist

Plastics
- Plastics Engineer
- Plastics Process Technician
- Molding/Extrusion Operators

Pre-Apprenticeship
- Apprenticeship

Marketing/Sales
- Marketing/Sales
1999
- High School Graduate
- Entry Level Machine Operator

2002
- Promoted to Production Team Leader

2002
- Started attending college majoring in MIS, while working full time at FQ utilizing tuition reimbursement program

2004
- Promoted to Controls Technician
- Received technical training within First Quality

2009
- Promoted to Controls Engineer

2013
- Promoted to Sr. Controls Engineer

2019
- Promoted to Divisional Continuous Improvement Engineer
Why is Industry Engaged in Pre-Apprenticeships?

Pre-apprenticeships and apprenticeships are a powerful solution that equip students and workers with the technical skills needed to drive the country’s manufacturing industry to grow and succeed in the global economy.

Pre-apprenticeships and apprenticeships are tools that make an effective workforce development system—it’s a talent recruitment, selection, education, development, and retention model.

IT IS GOOD BUSINESS!

As leaders in education, industry, and the community, it is our obligation to ensure that students are equipped with the skills they need to lead a successful and fulfilling life.
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